

IN THE CLAIMS:

✓ Please cancel claim 27.

Please amend the following claims:

- A
3. A retroviral vector according to claim 1 [or claim 2] wherein the retroviral vector further comprises a second NOI; wherein the second NOI is downstream of the functional splice acceptor site.
4. A retroviral vector according to claim 3 wherein the retroviral pro-vector comprises the second NOI; wherein the second NOI is [downstream] upstream of the second nucleotide sequence.
5. A retroviral vector according to claim 3 [or claim 4] wherein the second NOI, or the expression product thereof, is or comprises a therapeutic agent or a diagnostic agent.
6. A retroviral vector according to claim 1 [any one of the preceding claims] wherein the first NOI, or the expression product thereof, is or comprises any one or more of an agent conferring selectability [(e.g. a marker element)], a viral essential element, or a part thereof, or combinations thereof.
7. A retroviral vector according to claim 1 [any one of the preceding claims] wherein the first NS is at or near to the 3' end of a retroviral pro-vector[; preferably wherein the 3' end comprises a U3 region and an R region; and preferably wherein the first Ns is located between the U3 region and the R region].
8. A retroviral vector according to claim 7 wherein [the U3 region and/or] the first NS of the retroviral pro-vector comprises [an NS that is] a third NOI; wherein the third NOI is any one or more of a transcriptional control element, a coding sequence or a part thereof.

A1
cont 9. A retroviral vector according to claim 1 [any one of the preceding claims]
wherein the first NS is obtainable from a virus.

12. A retroviral vector according to claim 1 [any one of the preceding claims]
wherein the retroviral pro-vector comprises a retroviral packaging signal; and wherein the
second NS is located downstream of the retroviral packaging signal such that splicing is
preventable at a primary target site.

A2
13. A retroviral vector according to claim 1 [any one of the preceding claims]
wherein the second NS is placed downstream of the first NOI such that the first NOI is capable
of being expressed at a primary target site.

14. A retroviral vector according to claim 1 [any one of the preceding claims]
wherein the second NS is placed upstream of a multiple cloning site such that one or more
additional NOIs may be inserted.

15. A retroviral vector according to claim 1 [any one of the preceding claims]
wherein the second NS is a nucleotide sequence coding for an immunoglobulin molecule or a
part thereof.

A3
18. A retroviral vector according to claim 1 [any one of the preceding claims]
wherein the vector additionally comprises a functional intron.

A4
21. A retroviral vector according to claim 1 [any one of the preceding claims]
wherein the vector or pro-vector is derivable from a murine oncoretrovirus or a lentivirus.

A5
23. A retroviral vector as defined in claim 1 [any one of the preceding claims]
wherein the retroviral vector is an integrated provirus.

24. A retroviral particle obtainable from a retroviral vector according to claim 1 [any one of the preceding claims].

25. A cell transfected or transduced with a retroviral vector according to claim 1 [any one of claims 1-23] or a retroviral particle obtainable from a retroviral vector according to claim 1 [according to claim 24].

26. A retroviral vector according to claim 1 [any one of claims 1-23] or a viral particle obtainable from said retroviral vector [according to claim 24] or a cell transfected or transduced with said retroviral vector or said retroviral particle [according to claim 25] for use in medicine.

28. A method comprising transfecting or transducing a cell with a retroviral vector according to claim 1 [any one of claims 1-23] or a viral particle obtainable from said retroviral vector [according to claim 24] or by use of a cell transfected or transduced with said retroviral vector or said retroviral particle [according to claim 25].

29. A delivery system for a retroviral vector according to claim 1 [any one of claims 1-23] or a viral particle obtainable from said retroviral vector [according to claim 24] or a cell transfected or transduced with said retroviral vector or said retroviral particle, [according to claim 25] wherein the delivery system comprises one or more non-retroviral expression vector(s), [adenoviruse(s)] adenovirus(es), or plasmid(s) or combinations thereof for delivery of an NOI or a plurality of NOIs to a first target cell and a retroviral vector for delivery of an NOI or a plurality of NOIs to a second target cell.

30. A retroviral pro-vector as defined in claim 1 [any one of the preceding claims].

31. A retroviral vector according to claim 1 comprising [Use of] a functional intron [to] that can restrict expression of one or more NOIs within a desired target cell.

32. A retroviral vector according to claim 1 [Use of a reverse transcriptase to deliver a] wherein the first NS is delivered by a reverse transcriptase from the 3' end of [a] the retroviral pro-vector to the 5' end of [a] the retroviral vector.

A⁶
33. A hybrid viral vector system for *in vivo* gene delivery, [which] wherein the system comprises one or more primary viral vectors which encode a secondary viral vector, wherein the primary vector or vectors is capable of infecting a first target cell and of expressing therein the secondary viral vector, [which] wherein the secondary vector is capable of transducing a secondary target cell.

34. A hybrid viral vector system according to claim 33 wherein the primary vector is obtainable from or is based on a adenoviral vector [and/or] and the secondary viral vector is obtainable from or is based on a retroviral vector [preferably a lentiviral vector].

35. [Use of a] A hybrid viral vector system according to claim 33 [claims 33 and 34] wherein the secondary viral vector is a lentiviral vector and said lentiviral vector has a split-intron configuration.

36. A hybrid viral vector system according to claim 33 wherein the secondary viral vector is a lentiviral vector and the lentiviral vector comprises or is capable of delivering a split-intron configuration.

A⁷
40. A hybrid viral vector system for *in vivo* gene delivery, [which] said system [comprises] comprising a primary viral vector which encodes a secondary viral vector, wherein the primary vector is capable of infecting a first target cell and of expressing therein the secondary viral vector, [which] wherein the secondary vector is capable of transducing a secondary target cell, wherein the primary vector is obtainable from or is based on a adenoviral vector and the secondary viral vector is obtainable from or is based on a retroviral vector [preferably a lentiviral vector].

41. A hybrid viral vector system for *in vivo* gene delivery, [which] said system [comprises] comprising a primary viral vector which encodes a secondary viral vector, wherein the primary vector is capable of infecting a first target cell and of expressing therein the secondary viral vector, [which] wherein the secondary vector is capable of transducing a secondary target cell, wherein the primary vector is obtainable from or is based on a adenoviral vector and the secondary viral vector is obtainable from or is based on a retroviral vector [preferably a lentiviral vector]; wherein the viral vector system comprises a functional splice donor site and a functional splice acceptor site; wherein the functional splice donor site and the functional splice acceptor site flank a first nucleotide sequence of interest ("NOI"); wherein the functional splice donor site is upstream of the functional splice acceptor site; wherein the retroviral vector is derived from a retroviral pro-vector; wherein the retroviral pro-vector comprises a first nucleotide sequence ("NS") capable of yielding the functional splice donor site and a second NS capable of yielding the functional splice acceptor site; wherein the first NS is downstream of the second NS; such that the retroviral vector is formed as a result of reverse transcription of the retroviral pro-vector.

42. A retroviral vector according to claim 1 wherein said retroviral vector is capable of differential expression of NOIs in target cells [substantially as described herein].